Author Index
Volume 17

Adams, M.D., and Kerstens, A. Tracking naturally occurring indoor features in 2-D and 3-D with lidar range/amplitude data [17:9] pp. 907–923.

Ahuactzin, J.M., Gupta, K., and Mazer, E. Manipulation planning for redundant robots: a practical approach [17:7] pp. 731–747.

Akella, S., and Manson, M.T. Posing polygonal objects in the plane by pushing [17:1] pp. 70–88.

Alami, R., Chatila, R., Fleury, S., Ghallab, M., and Ingrand, F. An architecture for autonomy [17:4] pp. 315–337.

Arocena, J.I., and Daniel, R.W. Design and control of a novel 3-DOF flexible robot, part 1: design and evaluation [17:11] pp. 1167–1181.

Arocena, J.I., and Daniel, R.W. Design and control of a novel 3-DOF flexible robot, part 2: modeling and control [17:11] pp. 1182–1201.

Ayrulu, B., and Barshan, B. Identification of target primitives with multiple decision-making sonars using evidential reasoning [17:6] pp. 598–623.

Baines, P.J., and Mills, J.K. Feedback linearized joint torque control of a geared, DC motor driven industrial robot [17:2] pp. 169–192.

Bélanger, P.R., Dobrovolny, P., Helmy, A., and Zhang, X. Estimation of angular velocity and acceleration from shaft-encoder measurements [17:11] pp. 1225–1233.

Berkemeier, M.D. Modeling the dynamics of quadrupedal running [17:9] pp. 971–985.

Boley, D.L., and Sutherland, K.T. A rapidly converging recursive method for mobile robot localization [17:10] pp. 1027–1039.

Borrelly, J.-J., Coste-Manière, E., Espiau, B., Kapellos, K., Pissard-Gibollet, R., Simon, D., and Turro, N. The ORCCAD architecture [17:4] pp. 338–359.

Boyer, F., and Khalil, W. An efficient calculation of flexible manipulator inverse dynamics [17:3] pp. 282–293.

Brady, K., Tarn, T.-J., Xi, N., Love, L., Lloyd, P., Burks, B., and Davis, H. A modular telerobotic architecture for waste retrieval and remediation [17:4] pp. 450–460.

Brogliato, B., Rey, D., Pastore, A., and Barnier, J. Experimental comparison of nonlinear controllers for flexible joint manipulators [17:3] pp. 260–281.

Brost, R.C. and Peters, R. R. Automatic Design of 3-D Fixtures and Assembly Pallets [17:12] pp. 1243–1281.

Buss, M., Faybusovich, L., and Moore, J.B. Dikin-type algorithms for dextrous grasping force optimization [17:8] pp. 831–839.

Cao, B., Dodds, G.I., and Irwin, G.W. A practical approach to near time-optimal inspection-task-sequence planning for two cooperative industrial robot arms [17:8] pp. 858–867.

Ceccarelli, M., and Sorli, M. The effects of design parameters on the workspace of a turin parallel robot [17:8] pp. 886–902.

Chen, I.-M., and Burdick, J.W. Enumerating the non-isomorphic assembly configurations of modular robotic systems [17:7] pp. 702–719.

Chen, Y.C., Seng, J., and O'Neil, K. A predictive algorithm for rate control of mechanisms near singularities [17:6] pp. 652–666.

Chung, J.H., Velinsky, S.A., and Hess, R.A. Interaction Control of a Redundant Mobile Manipulator [17:12] pp. 1302–1309.

Chevallereau, C. Feasible trajectories in task space from a singularity for a nonredundant or redundant robot manipulator [17:1] pp. 55–69.

Cloutier, G.M., and Gourdeau, R. Task constraints specification via optimized hyperellipsoids [17:3] pp. 294–304.

Codourey, A. Dynamic Modeling of Parallel Robots for Computed-Torque Control Implementation [17:12] pp. 1325–1336.

Coste-Manière, E., and Espiau, B. Editorial [17:4] pp. i–ii.

Damaren, C.J., Modal properties and control systems design for two-link flexible manipulators [17:6] pp. 667–680.

Daniel, R.W., and McAree, P.R. Fundamental limits of performance for force reflecting teleoperation [17:8] pp. 811–830.

Dekhil, M., and Henderson, T.C. Instrumented sensor system architecture [17:4] pp. 402–417.

DeMers, D., and Kreutz-Delgado, K. Learning global properties of nonredundant kinematic mappings [17:5] pp. 547–560.

Desaulniers, G., Soumis, F., and Laurent, J.-C. A shortest path algorithm for a carlike robot in a polygonal environment [17:5] pp. 512–530.

Doulgeri, Z., Fahantidis, N., and Paul, R.P. Nonlinear stability of hybrid control [17:7] pp. 792–806.

Erdmann, M. An exploration of nonprehensile two-palm manipulation [17:5] pp. 485–503.

Faraz, A., and Payandeh, S. A robotic case study: optimal design for laparoscopic positioning stands [17:9] pp. 986–995.

Featherstone, R. Book review [17:10] p. 1126.

Fermüller, C., Cheong, L.-F., and Aloimonos, Y. 3D motion and shape representations in visual servo control [17:1] pp. 4–18.

Fiorini, P., and Shiller, Z. Motion planning in dynamic environments using velocity obstacles [17:7] pp. 760–772.

François, C., and Sampson, C. A new approach to the control of the planar one-legged hopper [17:11] pp. 1150–1166.

Galicki, M. The planning of robotic optimal motions in the presence of obstacles [17:3] pp. 248–259.

Gibson, C.G., Marsh, D., and Xiang, Y. Singular aspects of general planar motions with two degrees of freedom [17:10] pp. 1068–1080.

Goswami, A., Espiau, B., and Thuilot, B. A Study of the Passive Gait of a Compass-Like Biped Robot: Symmetry and Chaos [17:12] pp. 1282–1301.

Hallam, J. Book review [17:2] pp. 200–201.

Hemami, A., and Polotski, V. Path tracking control problem formulation of an LHD loader [17:2] pp. 193–199.

Henderson, T.C., Dekhil, M., Brüderlin, B., Schenkat, L., and Veigel, L. Flat surface reconstruction using sonar [17:5] pp. 504–511.

Hines, R., Marsh, D., and Duffy, J. Catastrophe analysis of the planar two-spring mechanism [17:1] pp. 89–101.

Hovland, G.E., and McCarragher, B.J. Hidden Markov models as a process monitor in robotic assembly [17:2] pp. 153–168.

Hunt, K.H., and McAree, P.R. The octahedral manipulator: geometry and mobility [17:8] pp. 868–885.

Hwang, D.-Y., and Hannaford, B. Teleoperation performance with a kinematically redundant slave robot [17:6] pp. 579–597.

Hwang, Y.K., Kang, S.C., Lee, S., Park, S.M., Cho, K.R., Kim, H.S., and Lee, C.W. Human interface, automatic planning, and control of a humanoid robot [17:11] pp. 1131–1149.

Kamon, I., Rimon, E., and Rivlin, E. TangentBug: a range-sensor-based navigation algorithm [17:9] pp. 934–953.

Kaveti, S., Teoh, E.K., and Wang, H. Efficient computation of algebraic invariants from higher-degree implicit polynomials using tensor-based representation [17:10] pp. 1105–1125.

Khadraoui, D., Debain, C., Rouveure, R., Martinet, P., Bonton, P., and Gallice, J. Vision-based control in driving assistance of agricultural vehicles [17:10] pp. 1040–1054.

Kobayashi, H., Hyodo, K., and Ogane, D. On tendon-driven robotic mechanisms with redundant tendons [17:5] pp. 561–571.

Kuwana, Y., and Shimoyama, I. A pheromone-guided mobile robot that behaves like a silkworm moth with living antennae as pheromone sensors [17:9] pp. 924–933.

Latornell, D.J., Cherchas, D.B., and Wong, R. Dynamic characteristics of constrained manipulators for contact force control design [17:3] pp. 211–231.

LaValle, S.M., and Hutchinson, S.A. An objective-based framework for motion planning under sensing and control uncertainties [17:1] pp. 19–42.

Lee, J., Duffy, J., and Hunt, K.H. A practical quality index based on the octahedral manipulator [17:10] pp. 1081–1090.

Liu, Y.-H., and Arimoto, S. Decentralized adaptive and nonadaptive position/force controllers for redundant manipulators in cooperations [17:3] pp. 232–247.

MacKenzie, D.C., and Arkin, R.C. Evaluating the usability of robot programming toolsets [17:4] pp. 381–401.

Marchand, É., Ruttan, É, Marchand, H., and Chaumette, F. Specifying and verifying active vision-based robotic systems with the SIGNAL environment [17:4] pp. 418–432.

McCown-McClintick, B.E., and Moskowitz, G.D. The behavior of a biped walking gait on irregular terrain [17:1] pp. 43–55.

McLain, T.W., and Rock, S.M. Development and experimental validation of an underwater manipulator hydrodynamic model [17:7] pp. 748–759.

Morrell, J.B., and Salisbury, J.K. Parallel-coupled micro-macro actuators [17:7] pp. 773–791.

Nenchev, D.N., Tsumaki, Y., and Uchiyama, M. Singularity-consistent behavior of telerobots: theory and experiments [17:2] pp. 138–152.

Oboe, R., and Fiorini, P. A design and control environment for internet-based telerobotics [17:4] pp. 433–449.

Ontañón-Ruiz, J., McAree, P.R., and Daniel, R.W. Frequency-Domain Consequences of Low-Velocity Friction: The Nonminimum Phase Behavior of Geared Transmissions [17:12] pp. 1310–1324.

Oriolo, G., Panzieri, S., and Ulivi, G. An iterative learning controller for nonholonomic mobile robots [17:9] pp. 954–970.

Ostrowski, J., and Burdick, J. The geometric mechanics of undulatory robotic locomotion [17:7] pp. 683–701.

Pearson, C.M., and Probert, P.J. Navigation of autonomous vehicles using linear array cameras [17:6] pp. 624–638.

Sacks, E., and Bajaj, C. Sliced configuration spaces for curved planar bodies [17:6] pp. 639–651.

Schlemmer, M., and Gruebel, G. Real-time collision-free trajectory optimization of robot manipulators via semi-infinite parameter optimization [17:9] pp. 1013–1021.

Schneider, S.A., Chen, V.W., Pardo-Castellote, G., and Wang, H.H. ControlShell: a software architecture for complex electromechanical systems [17:4] pp. 360–380.

Sekhavat, S., Švestka, P., Laumond, J.-P. and Overmars, M.H. Multilevel path planning for nonholonomic robots using semiholonomic subsystems [17:8] pp. 840–857.

Seraji, H. Nonlinear and adaptive control of force and compliance in manipulators [17:5] pp. 467–484.

Seraji, H. A unified approach to motion control of mobile manipulators [17:2] pp. 107–118.

Szczerba, R.J., Chen, D.Z., and Uhran, J.J. Jr. Planning shortest paths among 2D and 3D weighted regions using framed-subspaces [17:5] pp. 531–546.

Tischler, C.R., Hunt, K.H., and Samuel, A.E. On optimizing the kinematic geometry of a dextrous robot finger [17:10] pp. 1055–1067.

Tischler, C.R., Samuel, A.E., and Hunt, K.H. Dextrous robot fingers with desirable kinematic forms [17:9] pp. 996–1012.

Wang, D., and Cheah, C.C. An iterative learning-control scheme for impedance control of robotic manipulators [17:10] pp. 1091–1104.

Wredenhagen, G.F., and Bélanger, P.R. An LQ-based task-space performance measure for robots [17:2] pp. 119–137.

Yata, T., Kleeman, L., and Yuta, S. Fast-bearing measurement with a single ultrasonic transducer [17:11] pp. 1202–1213.

Yu, K., and Goldberg, K.Y. A complete algorithm for fixture loading [17:11] pp. 1214–1224.

Zanganeh, K.E., and Angeles, J. A formalism for the analysis and design of modular kinematic structures [17:7] pp. 720–730.

Zisserman, A. Book review [17:8] pp. 903–904.